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N. GOODSELL, EDITOR.

CHOLERA.

Since the introduction of this disease into our country, there have been various theories as to its cause, and much speculation has followed as to its contagion, or noncontagion, the use of specifics, preventives, &c. all of which has had a tendency to increase confusion in the minds of individuals, and even medical men seem divided as to the origin and progress of this dreadful malady.

Were we to advance our opinion, upon the cause of this disease, we should say that we considered it purely epidemical, so far as to the predisposing cause; but that when the system is once predisposed, an exciting cause might develop the disease, where, had it not been so excited, nature might have overcome that predisposition, which was atmospherical, and the subject might have escaped malignant Cholera.

If we judge of the cause of this disease by its effects, we should be led to the conclusion, that our atmosphere contained, at this time, too great a proportion of carbonic acid gas, and consequently, there was a want of that proportion of oxygen, or vital air, sufficient and necessary to support animal life.

Although by the aid of chimistry, we are enabled to analyze the atmosphere, with sufficient accuracy for all purposes appertaining to the arts, yet, no one has arrived at that degree of perfection, that has enabled him, in times when epidemics have prevailed, to detect any material variation in the proportion of the constituents of it; but that there is an alteration sufficient to engender disease, all will readily agree. If then, the alteration is admitted, and the constituents of the atmosphere are too subtle for our correct or perfect examination, we shall be left to judge of the cause by the effect.

What are the symptoms peculiar to this disease, under which the patient labors? First, a sense of pressure at the stomach or lungs, indicating that there is a want of vital principle in the air we breathe; this is often accompanied with vertigo, or pains in the head; but a more characteristic one, is the thick, black, carbonated state of the blood, which increases until it becomes so thick as to be entirely stopped. This stoppage first takes place as might be expected, in the finer ramifications of the veins and arteries, impeding the circulation in larger ones, until the whole stream of life stands still, and the patient sinks to death, before mortification or decomposition takes place.

Now, the the changes in the animal feelings, and the color and consistence of the blood, are the same in the present disease, that would take place were the patient to be confined to, or made to breathe, an artificial atmosphere, in which there was too great a proportion of carbonic acid gas. Every person that is familiar with chimical experiments, has noticed that when a stream of carbonic acid gas is thrown into a vessel of blood, that much of its fluidity is destroyed, and the color is changed from red to black, exactly resembling what we find in cases of malignant Cholera. If a stream of oxygen is thrown into the same blood, it resumes its red color, and its fluidity; and as we know of no other substance, which we are to look for in the atmosphere, having a similar effect, it is reasonable to impute it to this, until we can find a more perfect solution.

Although by far the greatest proportions of our atmosphere, consist of nitrogen and oxygen, which are proportioned nearly as three of the former to one of the latter, by weight; yet, how great must be the quantity of carbonic acid gas, when we consider, that by far the greatest proportion of the solid parts of vegetables, are derived from the atmosphere, taken in by the leaves, which, during the day time, have the property of decomposing it, and retaining the carbon and sending off the oxygen; but, during the night, they also give off some of the carbonic acid gas, as light is supposed to be necessary to decompose it. So far, this theory would agree with the advice of physicians, "to avoid night air," as it contains more carbonic acid, than during the day time.

A suitable proportion of animals and vegetables, act upon the atmosphere, for the mutual benefit of each other; animals inhaling the atmosphere, retaining the oxygen, and giving off the carbonic acid gas; plants inhaling the atmosphere, retaining the carbonic acid gas, and giving off the oxygen; also, decomposing water taken up by the roots, and inhaled by the leaves during the night, which water being composed of hydrogen and oxygen, the hydrogen combines with the carbon from the acid, and the oxygen with which it was combined, is allowed to escape, so that the vegetable kingdom may be considered the great laboratory in which oxygen is prepared for the use of the animal kingdom, for supporting combustion, and for the saturation of minerals.

Taking these positions as correct, then there may be a certain proportion, between the animal and vegetable kingdoms, which is absolutely necessary for the welfare of both. If there is any country in which this necessary equilibrium has been destroyed, by an over population and want of vegetation, perhaps it is Asia.

Men who were particular in their meteorological observations, all agree that, during a period previous to the appearance of the Cholera among us, there was a prevalence of east wind, for an unusual length of time; or for a time sufficient to have transported the atmosphere, from the infected parts of Europe, to this country; if so, then we may hope that as vegetation resumes its activity, after midsummer, when it seems to suffer a kind of syncope, that the healthy equilibrium of our present atmosphere, may be restored; which, should it take place, would justify the position we have taken.

Under these circumstances, would not an attempt to form an artificial atmosphere, for a patient laboring under Cholera, in which there was an extra quantity of oxygen, be advisable; or might it not have a salutary effect, to allow them to breathe, for a short time, pure oxygen?

The above suggestions are thrown out, not as being known to be altogether perfect, but in hopes to induce others, who are better qualified to handle the subject, to appear before the public; as we are convinced it would be more beneficial, for people to be actively engaged in theorizing, even when they were not altogether correct, than to spend their time, altogether, brooding over the ravages of this fatal disease.

WATER-MELONS.

Palmyra, August 3, 1832.

MR. GOODSELL—I have suffered this year, from the loss of many water-melon vines, by blight, or some other disease. The seed were believed to be good—one year old—had been carried in my pocket, to season, several weeks before planting, agreeably to a suggestion in your paper—they came up well—the vines were plentifully watered with tepid soap suds, when the bugs first appeared upon them, and through the drouth; and they continued to grow thrifty till the late rains, when they had commenced bearing, and promised an abundant crop. The blight first appeared upon a single vine, and soon spread rapidly through the whole hill, leaving melons half grown, to perish for want of nourishment. It has reached other hills, and continues to spread, and I am threatened with the total loss of a crop which has cost me much pains, and of which I am extremely fond.—*Is there any remedy for me?*

A NEW GARDENER.

N. B.—The soil is a mixture of black loam, barn manure, and gravel, upon a gravel bottom. The hills are about three and a half feet asunder, with from four to ten plants in each, which have grown so luxuriantly as to form one complete mass of vines. The blight commenced at one extreme corner of the patch.

NOTE.—It frequently happens after long or heavy rains, that water-melon and cucumber vines droop and die. During the rain, when the ground is filled with water, the young roots become water soaked, to that degree, that many of them never recover.

Cabbage roots, are often effected in the same way; and plants may be seen withering after long rains, before the roots have had time to recover, after being soaked.

Another cause of the failure of water-melon and cucumber vines, at this season, is a large brown bug, which feeds upon them, and is particularly hurtful to vines which it infests. To prevent the former, raise the hills high; but for the latter, we know of no remedy, but to destroy the bugs.—EDITOR.

SEEDLING VINES.

MR. GOODSELL—I have a seedling grape vine, of some indigenous variety, 6 years old, which presented an abundance of blossom buds, last season and this, but no fruit. The blossoms resembled, every way, as far as I could distinguish, those of bearing vines, and were not touched by frost.—How shall I account for my disappointment? O.

NOTE.—The disappointment of O, is common to those who raise seedling vines, as perhaps not over one half of vines so produced, from our exotic grapes, will produce fruit. This is owing, in

most cases, to a malformation of the flower. We have examined some flowers, which were destitute of a pistil, of course were incapable of being fecundated. We have seen others which had pistils, but no stamens; these are capable of producing fruit, provided they grow near other vines, from the pollen of which they are impregnated. The vine alluded to above, in all probability, does not produce pistils, of course, is of that variety called a *staminate flower*. We do not hold that any grape belongs to the Class Dioicia, but that where one produces the stamens, and another pistils, they are monstrosities.—EDITOR.

EGG PLANT.

MR. GOODSELL—I have commenced raising, this year, for the first time, the *Egg Plant*. I selected, per the recommendation of the Genesee Farmer, the purple variety. The fruit is now twice as large a goose egg, and continues to grow. I do not know at what stage the fruit is fit for use? P.

NOTE.—In reply to the inquiries of P, respecting Egg plants, we believe there are four varieties cultivated in this country, a globular and an oblong, of each color, white and purple. The round purple being generally preferred for cooking, and the white for ornament. In size, they vary from one to seven or eight pounds weight. The time for cooking them, is when they have attained their full size, or in other words, when ripe.

They should be cut in thin slices, and soaked in salt and water for two or three hours; after which they may be rolled in butter, and fried as oysters, or broiled as beaf steak. They are likewise used in soups and stews.—EDITOR.

TO DAIRY WOMEN.

To prevent that rancid, nauseous flavor, which is too often prevalent in cheeses, even when made of the richest milk, and which otherwise would be delicious, salt the milk as soon as it is taken from the cows. I mean the evening's milk, which is kept in pans during the night, in order to be mixed with the new morning's milk. The quantity of salt, to be used on this occasion, is about a table spoonful to each gallon of milk, and is generally sprinkled on the bottom of the pan, and the milk poured upon the salt, and they soon become incorporated. This early salting has enabled many dairy women, whose cheese was before always hoven and detestably rank, now to produce excellent well flavored cheese, and on farms that had been pronounced totally unfit for the dairy system. To this small portion of salt, various good effects are attributed by those who use it; they say, it prevents the milk from souring, in the hottest nights; that it encourages coagulation, and very much promotes the separation of the curd from the whey which is a great saving. All dairy women, ought also to know that it is a false idea, and a loss instead of a gain to the proprietor, to rob cheese of a single particle of butter; and for these two reasons, because a pint of cream will produce more than trebble the quantity of curd, that a pint of skimmed milk will give; and because a cheese, with all the butter left in it, will lose very little of its weight by keeping, whereas that from which the butter has been avariciously taken, will lose one third of its original weight in twelve months.—*Agr. Repository*, 1809.

TREES FOR PLANTING BY PUBLIC ROADS, AND FOR HEDGES.

M. Hempel, in the Memoirs of the Pomological Society of Altenbourg,(vol. I.) recommends the lime, the horse-chesnut, the oak, the beach, the birch, the common acacia, and the different species of pines and firs. These he would plant in single rows where the soil is good, and in double rows where it is indifferent, or the situation bleak. But he greatly prefers planting fruit teees, and would form all public roads into avenues of sweet chesnuts, walnuts, geans, cherries, pears, apples, &c. or a mixture of these, according to the soil, climate, and exposure. Where it is practicable he would plant a row of apples and pears next the road, and another row of chesnuts and walnuts four yards distant from these; thus forming a sort of summer avenue on each side of the main road, to protect the traveller from the sun and the rain.

In low sheltered situations, where the direction of the road was east and west, he would plant walnuts, cherries, and pears on the north side, and low trees, such as apples and mulberries, the latter to be pollarded for the silk-worm, on the south side, as not impeding the sun's rays from drying the roads after rain.

This enthusiastic Pomologist would even turn the field hedges into sources of fruit; where hawthorn hedges already exist, he would cut them down and graft their roots, *entre-deux terres*, (a few inches under ground,) with pears and services; on the sloe he would graft plums of different sorts; crab-tree hedges he would turn into hedges of good sorts of apples; and where hedges were to be planted, *aborigine*, he would oblige under severe penalty, all proprietors and occupiers of land to use the commoner sorts of plums. But in certain situations he would, however, admit of the elder, filbert, barbary, and other fruit bearing plants, provided circumstances were unsuitable for plums and pears. As hedges for sheltering gardens, he will allow of nothing but espaliers of fruit trees or fruit shrubs, or beds, or double rows of raspberries.—*London*.

From the New England Farmer.

THE FARMER OF MOUNT VERNON.

Every person not profoundly ignorant of his country's annals, and who is at all conversant with the characters of the leaders in the revolution which gave existence to these United States, must have been in the habit of contemplating General WASHINGTON as an eminent agriculturist, as well as the man "*first in war, first in peace, and first in the hearts of his countrymen*" But few, however, could have supposed it possible that in the midst of public avocations of more importance than ever another man was engaged in, General WASHINGTON could have bestowed a particular attention to the details of husbandry; and have superintended and directed complex operations on saveral farms, at the same time that he presided over the destinies of a rising empire, in a novel, arduous, and hazardous career of military and political experiment. The following, copied from a "Letter from Mr. Jared Sparks, to the Hon. Judge Story," will present new motives, and fresh incentives, to every cultivator to imitate the virtues, and venerate the name of WASHINGTON.

AGRICULTURAL PAPERS.

There was no station in which Washington took more delight, or the duties of which he discharged with more zeal and activity, than that of a practical farmer. His achievements in this walk, were prodigious. It may fairly be questioned, whether any other individual in the country, not excepting the most industrious and enterprising, who has been devoted to this pursuit alone, has ever accomplished so much. He was commander of an army, and at the head of a nation for a few years only at a time, but a day never passed in which his farm was out of his mind.—During the whole war, he was planning improvements, directing them, and often writing letters of minute instructions to his manager. While President of the United states, it was his standing custom to write weekly, and receive weekly returns, in which he required great particularity and exactness in specifying occurrences, and the employment and progress of the laborers. I have before me a volume of press copies of letters, written in one year, during the Presidency, to his manager and overseers. Some of them extend to several pages, and they average more than one a week. They are written in his own hand, with its usually fair and regular character, and bear every mark of having been as much studied in expression and style as any of his compositions. In some cases, and probably in most, they were written and copied out by himself, before the press impressions were taken.

Such was his habit for years, amidst the burden of his public cares. There is also before me a curious agricultural document, dated 4 days before his death. It is a pamphlet of 24 folio pages, written in a close hand, containing instructions to his manager for the cultivation of three farms on the estate of Mt. Vernon the following year. Each farm was divided into lots which were numbered. In the pamphlet, very full instructions are given how to cultivate *every lot* in the three farms during the next year, stating the crops, with remarks on the soil, the products of former years, and the results of former experiments. Washington died, you will recollect, in the middle of December, and this pamphlet, drawn up evidently with much labor and reflection, was already prepared to be handed to the manager, at the beginning of the year, prefaced by a letter of general directions, on the importance of method and forethought, in farming operations, and this, notwithstanding he was himself to be on the plantation, and exercise a daily supervision.

These instances are mentioned only as examples; they indicate the habit, and it is unnecessary to add more. For a time he kept an agricultural journal, and was engaged in experiments on a rotation of crops, noting down for a series of years the crops of each lot, with remarks on the comparative success of different rotations. He was at much pains to stock his farms with the best breeds of animals, and his grounds were adorned with rare and curious trees and shrubs, collected from various parts of the United States, and from foreign countries. His correspondence with Sir John Sinclair, Mr. Anderson, and Arthur Young, on agriculture, has been printed. It is not my intention to select much for publication under this head, but such papers will be included, and such illustrations appended, as will exhibit in their due proportions the character of Washington on his farm, and his attention to the humble concerns of life.

VEGETABLE SUBSTANCES.

Melons.—The *melons of Persia* have long borne a high character. "Persia," says Malte Brun, (writing after Chardin, Oliver, and Langles,) "is consoled for the occasional failure of her grain crops, by the fineness of her fruits. There are twenty sorts of melons: the finest are in Khorassan. In Persia, this fruit is extremely succulent, and contributes greatly to health: they are sometimes so large, that three or four are a full load for a man."

It was not till lately that the seeds of melons were received in England direct from that country. In 1824, Mr. Willock, (the Ambassador to the court of Persia,) sent a parcel of seed; and another parcel in the spring of 1826. An account of ten varieties of these melons, by Mr. Lindley, was read before the Horticultural Society, in September, 1826; and the individual fruits referred to, were the produce of the society's garden that season.

VEGETABLE MARROW.

Vegetable Marrow, (cucurbita succada,) is a very important gourd; and though it has been but lately introduced into this country, (England,) it is already cultivated to a considerable extent. It is straw colored, of an oval or elongated shape; and when full grown, attains the length of about nine inches. When very young, it eats well, fried in butter; when half grown, it may be cooked in a variety of ways, and is peculiarly soft and rich, having an oily and almost an animal flavor.—When fully matured, it may be made into pies, for which purpose it is much superior to any of the other gourds. But it is in the intermediate, or half grown state only, that it deserves its common appellation of vegetable marrow. The vegetable marrow gourd is a native of Persia, but if the soil on which it is placed be rich and warm enough, it thrives very well with us in England, in the open air.

"I have been able," says Mr. Sabine, "to obtain but very imperfect accounts of the *origin* of this gourd. It was certainly new in this country within a few years, and I think the most probable account, (of the many that I have heard,) of its introduction, is, that the first seeds were brought here in one of our East India ships, and came probably from Persia; where, as I am told, it is known, and called *Cicader*. Its cultivation is easy."

If any other kind of gourd grow in the neighborhood, no reliance can be placed on the goodness of the *seed* of the vegetable marrow.—*Library of Entertaining Knowledge.*

ON THE MANAGEMENT OF PLANTS IN ROOMS.

BY JOSEPH PAXTON, F. L. S. AND H. S., ONE OF THE CONDUCTORS OF THE HORTICULTURAL REGISTER.

To treat on the proper management of plants in houses, is a subject attended with considerable difficulty, every genus requiring some variation both in soil, water, and general treatment. If the room where the plants are intended to be placed, is dark and close, but few will ever thrive in it; if on the contrary, it is light and airy, with the windows in a suitable aspect to receive the sun, plants will do nearly as well as in a green-house; but if they are observed to suffer, the effects may generally be traced to one of the four following causes:—want of proper light and air,—injudicious watering,—filthiness collected on the leaves, or, being potted in unsuitable soil.

1st. *Want of proper light and air*,—is perhaps the most essential point of any to be considered; for however well all other requisites are attended to, a deficiency in either of these, will cause the plants to grow weak and sickly. Let them always be placed as near the light as they can conveniently stand, and receive as much air as can be admitted, when the weather will allow,—indeed, those persons who have no other convenience than the house to keep them in, will find that they derive immense advantage from being, during fine weather, in spring and autumn, turned out of doors in the evening, and taken in again in the morning,—the night-dews contributing greatly to their health and vigor.

2d. *Injudicious watering*,—does more injury to plants in rooms, than many persons imagine. To prevent the soil ever having a dry appearance, is an object of importance in the estimation of many, they therefore water to such an excess, that the mold becomes sodden, and the roots consequently perish.—Others, to avoid this evil, run exactly into the opposite extreme, and scarcely give sufficient to sustain life. This, however, is by no means so common a practice as that of giving too much; for in general, if any thing appears to be the matter with the plants, large doses of water are immediately resorted to, and if recovery is not speedy, this nostrum is again administered, with but little doubt of its infallible restorative powers:—but such persons, like an unskilful physician, who gluts the weakly stomach of his patient, only hasten on what they are trying to prevent. This overplus of water will show its bad effects by a very dark color and flabby disposition of the leaves; and if the plant receives too little, the leaves will turn yellow and eventually die.

The best plan is, always allow the soil in the pot to have the appearance of dryness, (but never sufficient to make the plant flag,) before a supply of water is given, which should then be pretty copious, but always empty it out of the pan or feeder in which the pot stands, as soon as the soil is properly drained. The water used for the purpose, ought always to be made about the same temperature as the room in which the plants grow,—never use it fresh from the pump,—either let it stand in a warm room all night, or take off the chill by adding a little warm water to it, or the growth of the plants will be much checked.

3d. *Filthiness collected on the leaves*,—may either arise from insects, or dust; the former may be speedily remedied, by placing the plants under a hand-glass, or any thing that is convenient, and burning some tobacco until they become well enveloped in the smoke; and the latter may be removed by occasionally washing them on the head with pure water, either by means of a syringe, the rose of a watering-pan, or with a sponge, when the filth still adheres.

4th. *Being potted in unsuitable soil*,—is by far the most difficult part of the business to rectify, for no certain line can be drawn, unless each genus was treated on separately; however, as this cannot be done in a paper like the present, a few general remarks, which, perhaps, with some little exceptions, may be found to be pretty correct, must suffice.

All plants whose branches are fragile or slender, and roots of a fine thready, fibrous texture, with general habits like the Ericæ, as Diosma, Andersonia, Epacris, &c. will require the same soil, (peat earth,) and very similar treatment to Cape Heaths. Those whose wood and general habits partially differ, and whose roots are of a stronger texture, as Acacia, Ardisia, Stenocarpus, Tetrathica, Tristanea, &c. will require a portion of sandy loam,—in many cases about equal parts; and where the habits, &c. differ materially from the Heath, only a small portion of peat earth will be required, and a compost may be made a little rich, by the addition of well rotted dung, or a similar soil to that prescribed for Pelargoniums. Almost all Cape and other bulbs, as Sparaxis, Ixia, Gladiolus, Tritonia, &c. thrive best in light rich sandy loam, without any mixture of peat. Shrubby and herbaceous plants, with luxuriant roots and branches, as several species of Myrtus, Jasminum, Hibiscus, Hermannia, Heliotropium, &c. require rich loam, lightened with leaf soil, without any portion of peat. Plants with powerful roots, and but slender heads, as Veronica, Senecio, Scutellaria, Ruellia, Maurandia, &c. require a light sandy soil, mixed with a small portion of leaf mold and very rotten dung. At the time of potting, always lay plenty of broken pot shreds at the bottom of each pot to give a good drainage.

It will be seen that these directions do not allude to either Orchideous, Succulent, or Aquatic plants.

Many of the Orchideæ are parasitical, and require a portion of decayed wood mixing with the soil;—others grow in damp moss—but these being chiefly stove plants, they will not flourish in a room: there are several genera however, that do very well both in the green-house, and in rooms, as Arethusa, Calopogon, Dendrobrium, Ophrys, &c. the soil suitable for these, is a mixture of about equal parts of light sandy loam and peat; very little or no water, must be given when they are not in a growing state.

Succulent plants of all descriptions, require very little water, and in general are very easily managed in rooms; many of them thrive in a mixture of sandy soil and lime rubbish, as Aloe, Cacalia, Cactus, Aizoon, &c.; others grow well in a mixture of peat and loam, as Coris, Cotyledon, Mesembryanthemum, &c.

Aquatic plants, as Villarsia, Actinocarpus, &c. generally do well in a mixture of peat and loam, and require to be constantly kept in a wet state; indeed the best way is to place the pot in a deep pan or feeder, which should always be kept full of water.

Bulbs of most sorts, flourish in rooms, with less care than most other kinds of plants.

If the above precautions be attended to, plants may be brought to nearly, if not altogether, as much perfection as in a green-house.—*Sheffield, (England,) Mercury.*

To make Vinegar.—To every ten gallons of rain water add one gallon of molasses, and one of brandy; mix them well together, and place the cask in a garret, or some warm dry place, and occasionally shaking it, in a few months it will be fit for use.—*American Farmer.*

You may depend on it, he is a good man, whose friends are all good, and whose enemies are characters decidedly bad.—*Lavater*

For the Genesee Farmer.

A FILTERING CISTERN.

It is a fact not generally known, that rain water, when divested of its impurities, is the most healthy and pleasant, as well for drinking as for culinary purposes, of any that can be used. In many districts of our country, embracing some of the most fertile, and generally where clay or lime are material constituents of the soil, the water of springs, and especially of wells, is more or less bad, and deleterious to health. The unhealthiness of some neighborhoods is imputed almost wholly to this cause. Next to a pure air, the use of pure water contributes probably more than any single circumstance, to health and comfort. To bring within the ordinary means of our citizens, a remedy to the evils incident to the use of bad water, must, therefore, be a desideratum of vast importance. And I think this may be effected by properly constructed filtering cisterns.

My attention was particularly called to the subject the other day, by being presented, by Mr. James Requa, of Albany, with a glass of as limpid and pure water as ever I drank, *drawn directly from his rain water cistern*, filtered and purified in its ordinary progress from the roof to the receiver from which it was drawn. Not then having time, I did not ascertain the principles of construction, the capacity, nor the expense of this cistern. But I have requested Mr. R. to communicate to me the particulars. In turning over part I. of Loudon's Encyclopædia of Cottage, Farm and Villa Architecture, a valuable work now issuing, or rather *being issued*, from the London Press, I find both a description and diagram of a filtering cistern, which the philanthropic editor recommends as indispensable to the health and comfort of even the inmates of the cottage, which I transcribe for your Journal, in the hope that the subject will receive that public attention which its importance seems to merit. The principle may be adopted on any scale:

"*The mode of filtering* is very simple, and will be easily understood from the section E. F. of design I. In this section

8.

fig. 8, *a* represents a vacant space of three inches from the bottom to *b*; *b* is a slate, stone or board, pierced with numerous holes, say at the rate of three to an inch, of about the eighth of an inch in diameter; *c*, is a mixture of clean coarse sand and powdered charcoal, or coarse burnt clay, without either sand or charcoal; *d*, a filtering stone; or in default of a stone of this porous nature, a plate of lead thickly pierced with holes, of one twentieth of an inch in diameter; *e*, an opening, by which the water of the receiving tank *f*, communicates with *a*, at the bottom of the filtering tank; *g*, an opening by which this water, after it has ascended through the filter, runs over into the reserve tank *h*. The filtering of the water may be effected in a more simple manner, by placing a layer, about six inches thick, of round stones, about the size of eggs, in the bottom of the filtering tank, and over this either burnt clay, or sand and charcoal, covered by a pierced leaden plate as before; or by a stratum of sponge, which may be substituted for the plate. It must be evident by inspecting the section (fig. 8.) that when the water supplied by the roof to the receiving tank, *f*, rises above the level of *d*, it will run over, by *g*, into the reserve tank, *h*; and that the water in all the three tanks will always stand at the same level, provided the water in the tank, *f*, be above the level of *d*.

"*The filtering material may be cleaned* by having a large cock in the bottom of the receiving tank, communicating with the water drain; by opening which, when the reserve cistern is full, the water in that cistern will run through the filture, in a contrary direction to what it did before; and will car-y off all the impurities, either in the filture, or in the space at the bottom, *a*. The filtering might also be effected by placing the filter in the tank *f*, instead of in the centre tank; and by introducing the water from the roof direct to the space, *a*, by a pipe, through the filter; the water would then rise through the filter and fill the tank, *c* and *h*. A larger reserve of filtering water would then be obtained; but the filter would require cleaning oftener. The great advantage of the mode we have recommended is, that the water will deposit the greater part of its impurities in the bottom of the tank, *f*." *p.* 16.

The materials, with us, should be bricks, set in water cement, or pitch pine plank, grooved and surrounded by a bed of stiff clay, puddled or pounded, and even water casks may be made to answer for a time.—It is estimated that the quantity of water which annually falls upon a square yard surface in Britain, is 126 gallons. It is somewhat less here. But the roof of a house would afford an ample supply for its inmates. A cistern of six cubic feet will hold sixteen hogsheads, or sixteen hundred gallons. Stolbugh says he drank some rain water in the vicinity of Naples, nearly three years old, and found it excellent.

Albany, Aug. 1832. J. B.

For the Genesee Farmer.

CANADA THISTLES.

An esteemed correspondent has expressed doubts of the success of destroying Canada thistles by ploughing. I am therefore induced to extend my remarks; and the importance of understanding this subject will appear from a recent transaction: One of our wealthiest merchants lately sold his homestead, where he has resided about thirty-five years, alleging as his only reason that the Canada thistle was over-running the neighborhood. Not two miles from that place, I have just seen a large field, perhaps fifteen acres, mostly covered by these thistles in full flower; and some other fields are scarcely in a better condition.

This state of things ought not to continue. While we allow our farmers full liberty to raise such crops as they please without injuring their neighbors they ought to be satisfied; and if a fine or tax should be levied upon such crops as do prove injurious to others, the reasonable part will either pay it cheerfully or discontinue the culture.—Now Canada thistles when allowed to ripen, injure our neighbors. If his fields are clear of them this year, we send him seed enough to excite his vigilance and industry next season. If our assessors were authorised to examine all our fields,—and if the supervisors were directed to add to our tax list five or ten dollars an acre for this crop,—we shouid soon grow tired of it; and instead of the present listlessness which prevails on this subject, the most eager inquiries would be made by our farmers, how they could best dispose of the concern.

For such as are willing to begin before the Legislature shall interfere, I offer a few remarks,—first expressing my satisfaction with DAN BRADLEY and others for the interest that they have shown in this matter by communications to the Genesee Farmer.

The Canada thistle extends itself by horizontal roots which lie a few inches below the surface; and from these the stalks rise at different distances. If the stalks are mowed off an inch or two above the ground, lateral shoots are produced without any great effort in the plant; and though it will be prevented from seeding, its vigor is but slightly impaired. When the stalks are pulled up, however, the separation commonly takes place at the horizontal root; and to produce a new stalk much more preternatural energy is required. Hence ploughing is more destructive to them than hoeing, even if the horizontal roots should not be disturbed; and the hoe is more effectual than the scythe.

It was in the year 1810, that I first saw this thistle fearlessly attacked by a farmer of this town with the plough. He manured and planted the patch with potatoes, hoeing occasionally. Nearly all the work was done before harvest,—for the thistles were so checked that very few were visible towards the close of the season.

In 1825, I laid out my garden on ground particularly infested with Canada thistles. Both the plough and the hoe were employed; the new shoots, especially after midsummer, were drawn up as soon as they were found; and I shall be safe in saying that not a dozen stalks appeared the next season.

For small patches,—or even for large ones where only a few stalks remain,—I would recommend the application of salt or brine. This summer, amongst the roots of my grape vines, a plant of this thistle appeared with a few stalks. More than a month ago, I cut them below the surface of the ground with the corner of a hoe, making an excavation, into which I poured a gill or two of old brine. No shoot from this plant has been seen since. I also treated many stalks of a larger patch in the same manner, and with the same success. Brine in proper quantity certainly kills the root to some distance, probably a foot or more each way; and if farmers will watch the first appearance of these weeds in their fields and meadows, and attack them in this manner before the plants extend themselves much through the ground, a great saving of labor may be made.

But for large patches, where the stalks are very numerous, and especially where whole fields are more or less infested, I would strongly recommend thorough and frequent ploughings. The farmer who undertakes this business, however, must do it faithfully, or he had better never touch them in this manner. He ought to make up his mind fully to plough them as often as they appear above ground, throughout the whole season, whether that be once a month or once a fortnight; and also to make a free use of the hoe, if stumps or rocks occur in the field.

Many farmers have fallen into a great error which ought to be pointed out and exposed: After this weed has been checked by the culture of corn or potatoes for one season, they frequently sow oats or barley

in the following spring, and the enemy is allowed time to recover its vigor. No crop should be thought of which would exclude the plough or the hoe for even part of a summer, until the thistles be completely exterminated; and if the business is well and thoroughly conducted, there will not be one root alive at the close of the second season.

D. T.

Greatfield, Cayuga Co., 7 mo. 25, 1832.

Communicated for the Genesee Farmer.

DR. COLMAN'S REPORT.

Read before the Medical Board of Rochester, July 16, 1832.

To the Medical Board of Rochester:

Gentlemen—The following remarks are presented to you, not with the expectation that they contain any thing which you have not elsewhere seen, but in compliance with the wishes of the Board of Health, having only the limited claims to your notice, which a very few days of hasty observation upon Cholera could afford.

These remarks I shall confine principally to the *symptoms* of Cholera.—The *treatment* which I am led to consider the most successful—And the *morbid appearances* met with in post mortem examinations.

I conceive it would be of practical utility to distinguish Cholera as it ordinarily occurs into three stages—The stage of *Incursion*, of *Collapse*, and *Re-action*.

These severally present characters so strikingly marked, and require so much difference in treatment, that it appears not a little surprising that some such division has not been already made, forming the basis upon which practical instructions are made to rest.

The *symptoms* which mark the first stage, or the incursion of Cholera, are a loss of appetite, thirst, painful sense of distention of the stomach and bowels, furred tongue, nausea and watery discharges from the bowels, with occasional spasms in the arms and legs.

This stage of the disease, the most important to the safety of the patient, is too frequently lost sight of under the common appellation of *premonitory symptoms*, beguiling the patient into the false security, that while these symptoms only exists, he is safe from any *real* attack of Cholera.

After the diarrhœa has continued for a longer or shorter time, according to the circumstances connected with the case, vomiting sets in, accompanied with a sense of fainting, sometimes with vertigo, great muscular debility, increased discharges from the bowels, feebler respiration and circulation, sense of inward heat, and more frequent spasms.

A remarkable change now soon takes place, constituting the *second stage* of Cholera. The skin over the extremities becomes cold and clammy, and of a dark blue color, the features lose their fulness and expression; the fingers and toes, but especially the former, assume a shrivvled parboiled appearance, the pulse sinks rapidly, or even ceases at the wrist, respiration is feebly performed, spasms and discharges by vomiting or stool usually continue, while the abdomen becomes more tumid.

The patient, unless where spasms are unusually severe, complains of very little pain, but seems as if half dosing, with now and then a restless change of posture and an occasional calling for drink. If these symptoms be not speedily arrested, the case runs on rapidly towards a fatal issue. The whole surface now changes to a livid color: the tongue, nose, lips, and extremities become deadly cold, the pulse cannot be felt at the wrist, and with one or two copious watery discharges from the bowels, death closes the scene.

If however the stage of collapse has not been too rapidly ushered in, or timely and appropriate remedies have been employed, a re-action more or less considerable in different cases takes place.

This re-action constitutes the *third stage* of Cholera, and is invariably met with when we are able to rouse the system from the depression of the second stage; unless this re-action is promptly brought on, no hopes of recovery can be entertained. Where however it is speedily excited and the central organs are relieved of their congestion, we may anticipate a favorable issue of the case.

By the foregoing remarks I do not mean to be understood as describing a case of Cholera so precisely arranging itself into these several stages, that there is no blending of the symptoms peculiar to each. This must in Cholera, as in all other malignant diseases, necessarily occur. Who has not been struck with this feature of our autumnal intermitting and remitting fevers? does in not constantly take place in yellow fever, and are not writers on tropical disease full upon this point?—There is a hurry, as it were, in the circle of morbid action by which the usual order of disease is not suffered to take place.

In the *treatment* of Cholera we shall be much more successful if we consider the symptoms described in the first stage of the disease as constituting an essential part of its entire character.

For this the patient should be put to bed, or at least confined to a comfortable room; all drinks should be prohibited; his clothing should be such as to keep his skin sufficiently warm; & if he be of a plethorich abit, or is attended with fullness of the abdomen and tenderness on pressure, should be freely, (and in some cases) largely bled.

Indeed from what I have seen of Cholera, and from the post mortem appearances met with on dissection, I am led to believe that in a vast majority of cases the patient would be snatched from impending and certain death if freely bled during the first stage of the disease.

After bleeding some cathartic medicine should be given. If the symptoms were strongly marked, I should prefer Calomel to every other; and this if the spasms be severe, should be combined with a moderate dose of opium. If the spasms were not severe I would avoid the exhibition of opium and endeavor to allay the irritability of the muscular system by external stimulants; rest in a recumbent posture, and dry but moderate heat.

Next to calomel as a cathartic, I would prefer castor oil, and this if the irritability of the stomach be not considerable, will greatly aid the operation of calomel.

Should there be great difficulty in procuring the operation of cathartics, a repetition of the bleeding, or the local detraction of blood by means of cups or leeches would be necessary.

After free evacuations by cathartics have been procured, the patient may be indulged in taking a little barley water, tea, or arrow root, but this must not be allowed but with very great caution, lest the gastric symptoms be increased.

Next to relieving the abdomenal organs by the foregoing means, I conceive it to be, in this stage, of the greatest importance to keep a warm, and as far as possible, healthy state of the skin. To do this we have such an extensive catalogue of agents, from which to make our selections, that to designate particular ones is quite unnecessary. It must, however, not be lost sight of, that in this stage of the disease, whatever internal remedies we may employ, warmth, rest, and cheerfulness are to be regarded as essentially contributing to their favorable operations.

In the second stage of Cholera we have a far more difficult task to undertake, and one, which, in spite of our best directed efforts, will in too many cases prove wholly unavailing. The patient here is cold, livid, and almost pulseless, respiration and the voice are greatly altered, and the patient when not roused by some one of his most pressing symptoms, lies nearly insensible.

To overcome these alarming symptoms the most powerful stimuli have been recommended—whether, however, so wide a range of the *diffusible* stimuli to the exclusion of such as are permanent in their operation, is either safe or proper, there is great reason to doubt. Probably no better plan can be adopted when we find our patient in a state of collapse, than to place him immediately in a warm bed, and give him as soon as possible, from half an ounce to one ounce of Camphorated tincture of opium, and exhibit the same quantity by enema in some warm unirritating liquid.

After this, dry heat should be applied to the extremities, and very warm mustard poultices to the wrists, ankles, and epigastrium.

So soon as these means have been adopted, the sulphate of quinine, in doses from 2 to five grains, dissolved in a little wine, should be given. This should be repeated in such doses, and at such intervals, as the urgency of the case demands, until reaction sets in.

Should the symptoms seem to demand other diffusive stimuli than the camphorated tincture of opium, I would, especially if the patient had been intemperate, give equal parts of brandy and hot water in doses to suit the symptoms.

If a marked reaction can be produced, the quantity of every kind of stimuli should be lessened, and that course of treatment substituted which is suited to the *third stage* of Cholera.

This consists in relieving, as promptly as possible, the congested and suffering organs by venesection, while we aid its operation by continuing the counter stimulants, and keeping up external heat.

No part of the treatment is of more importance to the recovery of the patient, where timely means for relieving the symptoms of the first stage have been neglected, than the prompt and free detraction of blood so soon as the reaction is sufficient to cause it to flow.

Immediately after venesection, from 15 to 20 grains of calomel should be exhibited, which is to be repeated, or followed by castor oil in case it does not produce a free operation.

If spasms are severe, from 1 to 2 grains of opium should be combined with the calo-

mel, but if not, opium in a solid form should be withheld.

In conducting the treatment of Cholera, our attention must necessarily be called to the mitigation or removal of various symptoms which in this remarkable disease are apt to arise, and the common sense views of every practitioner will suggest that which is best adapted to each particular case.

No plan of treatment of universal application can indeed be proposed—all that is here intended is to recommend some *points* which, as landmarks, may serve to guide us in our remedial efforts.

The *post mortem* appearances may be classed into those which are *external*, and those which are *internal*.

The *external* are, color of the skin, changed from a shade of light blue to nearly black; this is most remarkable in the extremities which are sometimes quite black—hands, fingers and toes of a shriveled or par-boiled appearance—features shrivelled and livid—muscles remarkably rigid, even only a few moments after death—little or no fetor-veins, on being opened discharge a dark livid blood, which soon coagulates on exposure to the air—abdomen tumid, chest sonorous.

The *internal* appearances are, in the spinal canal veins injected with dark, fluid blood—theca also, much injected—spinal chord hard and showing red points on being cut across—dura matter, of a dark venous color—sinuses contain dark livid blood—veins distended with fluid blood—pia mater engorged and of a violet color—brain infected with blood, and showing innumerable dots of blood on being cut open—lungs collapsed and crepitous—peritoneum injected—no fluid in the cavity—stomach and intestines injected in its peritoneal coat—colon contracted and injected in its peritoneal coat, particularly at its junction with the ilium.—Spleen nearly natural—liver congested with fluid blood—gall bladder distended with dark green, or black bile. The stomach on being removed and laid open is usually nearly empty, and rarely contains bile—the mucous coat inflamed either continuously or in patches, and so much softened as to be easily scraped away with the finger nail. Small intestines usually distended with a dirty watery fluid, without fetor unless the patient has been sometime dead—no admixture of bile or natural fœces—the mucous coat inflamed more or less in its whole extent, but especially in the ilium—large patches of it softened, and when the patient has survived some time after the attack, it is found to be in a state of ulceration, more or less advanced, according to the duration of the disease—colon inflamed in its mucous coat, which corresponds in all respects with that of the ilium—kidneys congested—urinary bladder empty and firmly contracted.

The congested state of the viscera met with in those who have died of Cholera, has very generally led physicians to believe that thedisease consisted primarily in this congestion. When, however, dissections are made with sufficient minuteness and accuracy, and *without* preconceived theories to establish, morbid appearances are brought to light which warrant us in the conclusion that the *primary affection*, whatever may be the nature of the remote cause, consists in *an inflammation of the mucous coat of the stomach and intestines.*

It is this inflammation which ushers in the symptoms belonging to the first stage of the disease: painful sense of distention, tenderness on pressure, watery discharges from the bowels, spasms in the limbs, and occasional vomiting. This inflammation forms not only *a point of irritation*, by which an increased quantity of the circulating fluids is directed to the central organs, but from its suddenness and extent, and probably from the peculiar nature of the morbid agent which induces the disease, paralizes the ganglionci system of nerves so important to the preservation of healthy organic action.

These organs no longer controlled by a due degree of nervous influence, the chain of healthy vital action becomes broken, suffering the system to run quickly on to the development of those symptoms which constitute the *collapse*, or second stage of Cholera; such as faintness, small, slow, and feeble pulse, imperfect decarbonization of the blood, lessened elaboration of animal heat, deranged sceretory action, high congestion, &c.

But besides these disturbances in the central organs, resulting as we believe, from the violent impression made, *primarily*, upon the ganglionic system, by the local inflammation, is other divions of the nervous system, as the motor, the respiratory, the sentinent nerves become assailed, through the irritation excited in the brain and spinal marrow by the primarydisease, producing spasms in the voluntary muscles, feeble respiration and articulation, and great insensibility to external impressions.

The first of these classes of symptoms, spasms of the voluntary muscles, may occur during any stage of the disease, whilst the depression of respiratory action and diminished sensibility to outward objects, belong peculiarly to the second stage, and always present striking characteristics of Epidemic Cholera.

To follow up this subject, however, so as to treat it in any degree *pathologically*, would require time much beyond the prescribed limits of this communication.

Should further experience justify the views of Cholera, thus imperfectly sketched, this paper may form a sort of outline to more correct and ample detail. to be made I trust, when other engagements will not so wholly interfere with the discussion of a disease, now rendered of startling interest to us all, by its near and rapid approach to our village.

A. COLMAN, M. D.

Rochester, July, 1832.

From the New-England Farmer.

ON CONVERTING CDOVER INTO HAY.

Mr. Fessenden—In No. 1. of the volume of the New England Farmer, I observe a contrariety of opinions as to the best method of making clover hay, calculated rather to perplex, than to instruct and guide, the young and inexperienced in this branch of husbandry. Having practised both spreading and making this hay in cocks, for some twelve or fourteen years, on a scale of some magnitude, I offer you a comparison of their relative advantages, as suggested by my experience, with some illustrative remarks. A new and better practice is often rejected, in agriculture, from the doubts which caution suggests, or abandoned upon slight and imperfect trial. The prudent maxim, "*let well enough alone*," may be carried too far, especially, where, as in this case, the effort "*to do better*," incurs neither hazard nor expense.

The object of the farmer is to make the *best*, and *most* hay of his clover, with the *least labor*. The curing process is the mere evaporation of so much of the moisture of the grass as will prevent the heating or spoiling of the hay when housed or stacked. Rain, and even dew, are prejudicial after the grass has in part been cured.—In the spreading process, it requires, according to your correspondent, W. B., "three days of sunny weather;" during which, it is presumed, the crop is to be first spread, or tedded, thrice cocked, and twice opened from the cock,—making six operations after the grass is mown, before the curing process is perfected, to say nothing of the turning or raking. In the cocking process, one half of these operations, and consequently one half of the labor, are saved. For the grass cocks are made from the swath, and are once opened and again gathered for the cart. As to quantity, I always found, that the sun required to dry the succulent stocks of spread clover, crumbled and wasted the thin leaves and blossoms, which, if not a *principal*, are a *material* portion of the crop. I have seen one to two half bushels of those crumbled leaves and blossoms where a hay cock has stood, besides what has been wasted in gathering with the rake. I consider the loss from 15 to 25 per cent of the eatable or nutritive matter. In curing in the cock, the loss is not half a per cent. And I mean merely to judge from my own practice, when I say, that as to quality, the hay made in the latter mode is uniformly and vastly better than that made by spreading.

As my practice differs somewhat from either of the methods you have detailed, I will state it briefly.

I commence mowing clover after breakfast of a fair day, when the dew is principally dissipated, and continue cutting till night. At 2 or 3 P. M. one hand or more commence putting what was mown in the forenoon into grass cocks with forks. Each man takes say three swaths for a row of cocks. The cock is laid in the interval, where the ground has become dry, with as small a base as convenient, loosely, and to the height of three or four feet, and brought well to a point. Being laid in strata, and not rolled, the centre is kept highest, and the rain, should any fall, is carried off at the drooping exterior. The second day, that which was cut in the afternoon of the first, and the morning of the second, is put in like manner into grass cocks. The third day, if fair, or the first fair day that ensues, the grass cocks of the first day are opened, say at 8 or 9, and, if required, turned between 11 and 3, and housed the same day. Sometimes, where the clover has stood long, the process is finished the second day; and sometimes the grass cocks have stood five days, in bad weather, without fermenting, or suffering materially from the rain. If rain falls upon the swaths, they are spread and shaken, to expel the rain, but the grass cocked for the curing process. The common rake is often wholly dispensed with. What the fork does not collect, is gathered with the revolving horse rake when the hay is nearly housed, and taken off with the last load.

I cannot perceive, though I have never tried it, that making the hay in swaths has but little, if any advantage, over the spreading process. It suffers nearly as much from waste, is equally or more exposed to injury from rain or dew, and is not benefitted by what is termed the sweating process, or equalization of moisture. The nature of

this process I will illustrate by a comparsion familiar to a printer, and which will be understood by an editor or a farmer. In preparing unsized paper for the press, each quire is passed once or twice through a trough of water, by which one or two sheets of the twenty-four become completely saturated, while the residue receive comparatively none of the moisture directly. But when this paper has lain in a pile for a few hours, with a pressure upon it, the moisture becomes equally distributed throughout the mass, and it is difficult to identify the sheets which were originally wet. So with clover. When it has become wilted, the stocks are the principal repository of moisture. When put in grass cocks, they are continually parting with this excess to the leaves and drier parts, until a perfect equalization has taken place. A constant evaporation goes on from the exterior of the cock; and when it is opened preparatory to being housed, the moisture being equally distributed, the curing process is completed perfectly in two or three hours. This sweating, or equalizing process will take place in the mow if it does not in cock. The hay made in this way retains its leaves and blossoms, and a fine bright color.

My rules for making clover hay are: cut when dry—cock before it gets wet—open only when there is a prospect of a few hours' sun—and re-cock for the cart before the leaves crumble. B.

Albany, July, 1832.

To prevent horses being teased by flies.—Take two or three small handfuls of walnut leaves, upon which, pour two or three quarts of soft cold water; let it infuse one night, and pour the whole the next morning into a kettle, and let it boil for a quarter of an hour; when cold, it will be fit for use.—Nothing more is required than to moisten a sponge, and before the horse goes out of the stable, let those parts which are most irritable be smeared over with the liquor, viz: between and upon the ears, the neck, the flank, &c. Not only the lady or gentleman who rides out for pleasure, will derive benefit from the walnut leaves thus prepared, but the coachman, the waggoner, and all others who use horses during the hot months. —*Farmer's Receipt Book.*

BUSHES.

In many parts of our country, the pasture grounds are infested, and often overrun with noxious shrubs; this is the most slovenly part of our husbandry, and ought to be cured.

Eradicating them, says *Deane*, requires so much labor, that farmers are most commonly content with cutting them once in a few years. But the more cuttings they survive, the longer lived they are apt to be; and the harder to kill, as the roots continually gain strength.

It is undoubtedly true, that cutting bushes in the summer will do more towards destroying them, than doing it in any other season, particularly in August. Other circumstances being equal, the wettest weather is best for destroying shrubs by cutting. Spreading plaster on ground where bushes have been cut, may tend to check their resprouting, by encouraging the growth of grass.

It is said to be a good method of destroying bushes, to cut them with hoes close to the surface, when the ground is frozen hard; and that more may be destroyed in a day, in this way, than in the usual method of cutting with a bush scythe.

Bushes which grow in clusters, as alder, &c. may be expeditiously pulled up by oxen; and this is an effectual way to subdue them.

Elder is considered harder to subdue than almost any other kind of bush; mowing them five times in a season, it is said, will not kill them. The roots of the shrub oak will not be killed, but by digging them out.

To destroy bushes in swamps; flooding two or three summers is the most approved method. But if this is not convenient, draining will so alter the nature of the soil, that the shrubs, which it naturally produced before, will not be any longer nourished by it; and one cutting may be sufficient.

After all, extirpation, by digging them out, and by fire, is cheapest and most effectual.—*Farmer's Guide.*

From the Memoirs of the N. Y. Board of Agriculture.

ON LIMING SEED WHEAT.

By James M'Call of Allegany.—Jan. 1825.

Sir.—In answer to your inquiry on the subject of smut in wheat, I will state to you what has fallen under my observation.

When I resided in Seneca county, several years ago, my attention was particularly drawn to this subject, by observing, that while myself and neighbors were much injured by smut in our wheat, the crops of Mr. C. uniformly escaped. I inquired into the cause of the singular exemption, and learnt that it was owing to the seed having been limed.

In 1816, therefore, I washed my seed, put about three pints of lime to each bushel, mixed it well, and let it lie in a heap twelve hours before sowing. My crop was perfectly clean, while I can say all my neighbors had more or less smut.

In 1817, part of my seed was washed and limed, as in the preceding year; another part was washed and limed, and a pint of salt to each bushel mixed with the lime; a third parcel was washed in strong pickle and limed; and a fourth sown without any preparation. The result was as follows: The first had a little smut; the second none; the third none; and the fourth was a quarter smut—all on the same kind of land, and all sown in good weather, between the 5th and 15th of September.

In 1819, Mr. L. bought his seed of my neighbors, Mr. B. and Mr. G. and myself, and sowed all without preparation. Mr. G's crop was from seed had of me the year before, and sowed without process. It was found, on harvesting the crop, that the part sown with my seed was free from smut—that sown with G's seed had a little—and that sown with B's seed was one fourth smut. This statement I had from Mr. L.—I mention this circumstance to show, that seed wheat well cleaned as mentioned, will have an effect for two or three crops but I would never recommend to sow wheat without salt and lime.

As the Hessian fly has never yet troubled us in Allegany, I am unable to speak of the efficacy of preventing the ravages of that insect.

I beg leave to suggest to farmers, the propriety *of spreading their straw upon their pasture grounds*, either in the spring or fall. It will shield the ground from the extreme cold which often breaks the fibrous roots of the grasses. In summer it shields the ground from the scorching rays of the sun, prevents the evaporation of moisture, fertilizes the soil, and causes a strong rich swarth and when ploughed, will be equal to a coat of manure. JAMES M'CALL.

J. Buel, Sc'y, &c.

☞THE DELAY

In issuing this number must find an apology in the sickness which has afflicted the family of Mr. Tucker, and the printers engaged in the office. A similar cause may lead to other irregularities in the publication for a short time.

DIED,

In this village, on Thursday morning the 9th inst. of the Cholera, Charles Henry, only son of Luther Tucker, aged three years and eight months.

Mr. Russell S. Streeter, formerly of Rushville, Ontario co., died on Wednesday, the 15. He was a printer, employed in this office, and remained at his business till Tuesday morning, the 14th. He had been somewhat affected with a diarrhœa for a few days, to which he payed little attention. This, with other cases of recent occurrence, should impress upon all, the necessity, as they value life, of attending immediately to the premonitory symptoms of the Cholera, however slight they may appear Mr. Streeter was a professor of Religion —a young man of exemplary demeanor, 20 years of age.

In Lansingburg, of the prevailing epidemic, Horatio Gates Spafford esq. author of the "Universal Gazetteer," aged about 60

THE CHOLERA

Continues its ravages in this place. The following Table shows the whole number of cases and deaths, which have occurred from the commencement to August 16:

Date.	New Cases.	Deaths	Total Deaths	Total Cases.
July 12	1	0	0	1
13	0	1	1	0
14	2	0	0	3
15	0	1	2	3
23	2	2	4	5
24	2	0	4	7
25	1	1	5	8
26	5	1	6	13
27	9	1	7	22
28	6	3	10	28
29	11	5	15	39
30	13	4	19	52
31	22	3	22	74
August 1	12	2	24	86
2	6	2	26	92
3	1	0	26	93
4	7	4	30	100
5	4	2	32	104
6	9	3	35	113
7	5	3	38	118
8	12	1	39	130
9	14	2	43	144
10	11	1	44	155
11	14	2	46	169
12	9	3	49	178
13	10	1	50	188
14	23	7	57	211
15	26	11	68	237
16	15	4	72	251

EMIGRATION.

The tide of emigration rolls with great force from Britain to the Canadian provinces. More than 40,000 emigrants had reached Quebec this season prior to the 20th July. The Newcastle (Eng.) Chronicle mentions that "emigration from all parts of the United Kingdom appears to be going on at a *fearful rate*."

HOUSE KEEPING IN GERMANY.

The following interesting and amusing notices are from the pen of the Conductor of the Gardener's Magazine: "Few things in the domestic economy of the Germans strike an English resident more than the preparation, far exceeding that in his own country, which they make for the winter consumption of vegetables. Sauerkraut is a kind of food, of which every family stores up in proportion to its size, one or more large casks; and in October and November the market-places are crowded with huge white pyramids of cabbages, (all heart,) for sale; and in every court and yard into which an accidental peep is obtained, is seen the bustle of preparing them for use, and the baskets of shredded cabbage, which in that state resembles mountains of green-tinged froth or syllabub.

"*Kidney beans* are another vegetable of which, at an earlier period of the year, the Germans store up large quantities for winter consumption; a circumstance which accounts for the number of acres of this plant, which, at first excite the traveller's surprise, cultivated in the open fields, in the neighborhood even of towns not very large. Of the quantity of kidney beans thus stored in inns and some families, an idea may be formed from the following fact:—During 2 days that we spent in the latter end of August, at the Trierische Hof, the principal Hotel at Coblentz, from eight to ten women were constantly employed in the yard, (as they probably had been before our arrival, and continued to be after our departure,) in trimming and slicing [the pods of] kidney beans, of which, besides a large basket full next to each, there stood another in the midst of the circle that would have filled a good sized cart. The beans thus prepared are plunged into hot water for a few minutes, then drained, and closely packed with salt, in jars or barrels.

"In a similar manner are stored in October, considerable quantities of the leaf-stalks, and dried ribs of the leaves of young turnips, (after the thin part of the leaf has been cut off,) and a portion of the bulb, all cut into lengths of about an inch.—Without this provision of sauerkraut, kidney beans, and turnips, added to an ample stock of potatoes, onions, carrots, (kept in sand,) &c., all deposited in the spacious cellars with which every decent house is provided; and moreover abundance of apple, pears, and quinces, both fresh and dried, (by being peared, cut into slices, and hung on strings near a fire;) a German family would think itself badly fortified against the approach of winter, and would relish very badly being put, at this season, on the short and unvaried English commons of potatoes, with an occasional change of borecole or savory cabbage.

In fact, no German conceives he has dined tolerably, at any season, without having eaten of three or four kinds of vegetables. To decide which is the *best* system the German or the English would require a long discussion; but two points are clear: first, that the adoption of the varied German vegetable fare in England would lead to a greater extension of its horticulture;—and secondly, that the English cannot fairly determine how far they would prefer the German system until they have tried it. Many English residents in Germany, are as loud as the natives in the praise of sauerkraut, when properly cooked, which is every thing. For these reasons, it might be worth while for some of our horticultural societies to procure from the foreign ones, full and precise directions for preparing and storing their winter vegetables, and then offer premiums for the most successful imitation of the practice at home, giving a fair trial to sauerkraut, salted kidney beans, &c., by having them served at their anniversary dinners, cooked in the most approved foreign modes, as there seems no good ground why vegetables preserved and cooked in new ways should not be tasted and decided on at such dinners, as well as fruits grown or kept by new processes."

From the New England Farmer

SORREL.

Mr. Fessenden—In the "Economical Memoranda" of the N. E. Farmer, of July 14, I notice the following—"Lime will destroy sorrel. Sorrel is acid; lime is an alkaline earth; ergo the latter will destroy the former."

Pardon me for doubting the correctness of this inference,* as I do also a similar one, which, three years since, I heard the then President of the Hillsborough Agriculturul Society undertake to support in an address at their annual meeting.

He stated, that green manure was productive of sorrel; and his argument in proof of it may, in substance, be correctly reduced to the following syllogism, or more properly, perhaps, sophism. Green manure is sour; sorrel is acid; therefore the former will be productive of the latter. To obviate this effect of green manure, he recommended that it should be summered over and treated largely with ashes, lime, &c. which would completely destroy its sourness; and also give it a more absorbing quality, particularly of *nitre from the atmosphere*. You will agree with me, that the above theory encourages a too common error in husbandry.

We are often told by you, and other scientific writers on agriculture, and we cannot be too often reminded of the fact, that manure is greatly wasted by exposure to sun and rain, or by suffering its gasses to escape before it is committed to the earth. Such a practice is as absurd, as would be that of a cook who should keep the yeast till effervescence had ceased, or destroy its acidity by pearlashes, and after the fixed air had escaped, attempt to make light bread.

That green manure will introduce more weeds into the field than old, will not be denied, as the heat generated by effervescence is wanting to destroy their seeds; but this fact can scarcely be considered an objection to its use, by the good husbandman, who knows the use of the plough and hoe, and is willing to use them.

Sorrel may, undoubtedly, be introduced this way; but do we find it the common weed of farm yards and manure heaps? on the contrary is it not the common growth of newly burnt lands, where grass seed had not taken?

I have lately examined the spot on which charcoal was made two years since. The burning of the coal left so many ashes, mixed with the loam, by which the pit had been covered, as to prevent the germination of seed sown on them the succeeding year. Last spring I carted a portion of these to my wheat field, which at this time discovers their good effects,—and this season a large growth of sorrel has taken exclusive possession of the coal bottom.

Granting that green manure contains more acid than old, it is an evidence of its affording the more nutriment to plants, not that it would be exclusively congenial to sorrel; as the constituents of oxalic acid, the acid of sorrel, are the same as those of other vegetable acids, differing only in the degree of acidification by oxygen. Granting too, that *lime* or *ashes* will neutralize *this acid*, it does not follow that they would prevent its reproduction,† unless applied in so large quantities as to prevent all vegetable growth.

Logical reasoning on the subject of agriculture, without a due regard to vegetable economy will often lead to incorrect conclusions.

I have above hinted at the use of *coal pit bottom* as a manure. So far as I am informed, farmers consider that these possess a quality poisonous to vegetation, and the soil, which they occupy, is lost for some years. It is true, vegetables will not grow on them, till they have lost a share of their alkaline property, or become incorporated with more earthy matter, but this would be the case from an equal quantity of house ashes. They probably contain more carbon in a soluble state than any other manure, which adds much to their value. For a top dressing of grass land, for spreading on wheat fields, and for making compost of materials, which are hard of solution or decomposition, these bottoms are peculiarly adapted

I will leave to others to estimate the saving which would be made in every town and state, in which they are in great numbers, by their proper use. H.

Jaffrey, (N. H.) Aug. 18, 1826.

**By the Editor.*—Our correspondent is welcome to doubt or deny our positions, and we will thank him to point out our errors. But we are not convinced that we were incorrect in the present instance. In "Notices to a Young Farmer," published in the Memoirs of the Philadelphia Agricultural Society attributed to the Hon. Richard Peters, is the following passage; "Over cropping and shallow ploughing, with exhausting crops in succession, frequently causes overwhelming growths of *sorrel* to infest ill managed fields. *Lime is the only remedy;* and you will see in Lord *Dundonald's* "Connexion," &c. the good effects of lime; which destroys the sorrel and produces the *sorreline acid*, highly friendly to wholesome and profitable vegetation. *Green* sorrel grows on fertile soils, but the *red* sorrel is a certain proof of sterility." We suppose that by "*sorreline acid*," is meant *oxalate of lime*, which is a neutral salt, composed of lime and the acid of sorrel, [oxalic acid.] When any particular substance is essential to the existence of the vegetable, and as an acid is abundant in sorrel, and acids are destroyed by alkalies, it follows that alkalies will destroy sorrel.

†They will prevent its production as long as the alkaline principle predominates in the soil and no longer. Digging up sorrel by the roots will not prevent its production: still no reasonable objection can be made to that mode of destroying sorrel.—Editor.

HORSE CHESNUTS.

The powder of horse chesnuts being mixed with a third of flour, is found to make better paste than that made from flour only. (Mech. Mag viii.) We are glad to observe that these nuts can be applied to some useful purpose, and hope country shoe-makers and book-binders will take the hint.—*Conductor of Gard. Mag.*

An inviolable fidelity, good humor, and complacency of temper, outlive the charms of a fine face, and makes the decay of it invisible.